April 30 - May 6, 2004

<P>The Terra spacecraft is operating nominally. All five instruments are in science mode.</P>

<P>The Terra Tiger Team continues to meet. A proposed test has been under evaluation to help isolate the K-band dropouts on TDRS West and to eliminate the ground station as the cause by conducting dropout measurements via an antenna system outside from the White Sands infrastructure. WSC has approved a Transient Response Test plan for TDRS-F5, and a
telecon was held on May 5 to develop the plan. The test is planned for week of May 24.</P>

<P>The test involves simulating the TDRS-F5 dropout signature using the WSC EET, transmitting the RF to TDRS-F5 and observing the system response on the SGL downlink. The rising edge on the F5 dropout signature has a characteristic overshoot and undershoot
before settling, suggestive of control loop action. One potential source of the signature
was the Automatic Level Control (ALC) circuit within the return processor. This test is designed to isolate potential sources of the dropout to spacecraft components “in front” of the ALC circuit or those from the ALC circuit “back” to the SGL TWTA. In addition, the test procedure may provide a useful tool to diagnose the proper operation of the spacecraft ALC circuit across the fleet.</P>

<P>After thorough analysis of telemetry, the Terra Flight Operations Team (FOT) does not believe that the dropout events are being caused by anything happening onboard the Terra spacecraft. The FOT is still working to correlate spacecraft Master Oscillator (MO) frequency telemetry with the dropout times, to evaluate if MO frequency shifts could potentially be contributing to the problem.</P>

<P>There will be no MODIS lunar calibration roll maneuvers for the months of May and June due to the fact that the lunar view would require a roll in excess of the maximum value of 20 degrees allowed by the mission rules.</P>

<P>The next Delta-V maneuver to compensate for atmospheric drag will be conducted in June.</P>